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The Relationship Between Birth Order and Personality and Career Choices

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ABSTRACT

Birth order plays a substantial role in a child's life because the family is the first social system to which a child is exposed. One hundred subjects from a private liberal arts New England College were surveyed and asked to report their birth order, perceived traits, career choice, and college major. Analysis revealed there is statistically significant data regarding the relationship between first children and predicted, typical first child personality traits. The second hypothesis pertaining to birth order and chosen college majors was not statistically significant. However, there does exist a significant relationship between those subjects that tended to select personality traits that are identified as last children and the association with selected college majors. This could imply that psychological birth order may in fact play a significant responsibility in shaping a child's career choice. The findings of this analytical study are intended to encourage further investigation. The knowledge from this study can be seen as advantageous for the social work profession. It is imperative for social workers to understand and acknowledge every individual client in the context of the social systems in which they live in an effort to make progress and empower clients to achieve their goals.

THE RELATIONSHIP BETWEEN BIRTH ORDER AND PERSONALITY, SELF-ESTEEM, INTELLIGENCE, AND CAREER CHOICES

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Introduction

The order in which a person is born into their family plays a substantial role in the individual's development of personality, character, intelligence, and career choices (Stewart et al., 2001). The familial atmosphere is the first group experience a child has and the child's role in their family influences the development of the child's individual personality traits. In families, children learn what is valuable and meaningful to their parents and siblings and they compete with their siblings for various roles before they find their personal niche in the family (Stewart et al., 2001). As children are socialized into their families, the children make a place for themselves and no two children make a place for themselves exactly alike, even in the event that they are identical twins. The meaning that an event will have on a particular child's psychological development depends exclusively upon that child's interpretation of the event (Romeo, 1994).

First-borns possess a unique position in the family. The oldest child has the first choice of niche in the family system. The niche is often reflected as unyielding diligence in an attempt to please their parents. This is usually done in a traditional fashion via success in school and responsible behavior. They are perceived as more conscientious and achieving in comparison with the child's other siblings (Paulhus, Trapnell, & Chen, 1999). In fact, several of the personality attributes of first-born children include traits such as intelligent, obedient, stable, and responsible (Herrera, et. al., 2003).

The family environment for a first-born child is believed to affect the child's personality traits in aspects such as extraversion, maturity, and intellect. The first-born child often experiences a prominent sense of overprotection and interference from their

parents. First-born children are usually introverted and relatively mature for their age. This may be in part due to the fact that first-born children tend to spend more time with adults, so it is natural that they would grow up faster. First-borns are exposed to more maternal and paternal participation because there are no other children to divide attention (Herrera, et. al., 2003). First-born children are highly motivated and often perfectionists, which affects academic achievement. First-borns are seen as brighter than their siblings and work very diligently for their achievements.

Relative to first and last born children, middle-children are believed to experience less interaction and receive less attention which negatively affects the self-esteem of this child. Lacking the primacy of the first child and the attention-garnering regency of the youngest child, children in the middle role may feel "squeezed out" of importance in their family. Often middle children have nothing about them that make them feel special and worthy of their family's attention (Stewart et al, 2001). These children tend to feel their lives are overly scrutinized, and look outside the family for their own autonomy. The middle child reacts by acting out as a "rebel". Middle-children are believed to be very envious and try to escape their roles.

Last-born children are believed to be the most creative, emotional, extraverted, disobedient, irresponsible and talkative (Herrera, et. al., 2003). These children are depicted as constantly struggling to resist the higher status of the first born child, while also seeking alternative ways of distinguishing themselves in their parents' eyes. In accordance with the familial niche the last-born child develops, often this child's adult character is marked by an empathetic interpersonal style, a striving for uniqueness, and

political views that are both egalitarian and antiauthoritarian (Paulhus, Trapnell, & Chen, 1999).

Whereas high intelligence was attributed to firstborns, lastborns were believed to be more creative and artsy. The mental structural difference applies varying personality traits to the occupations in which they are associated. For example, first-borns are expected to choose career paths such as law and medicine, while in contrast, lastborns are expected to become artists, musicians, and photographers (Herrera et al., 2003).

Younger children usually have threatening anxiety-provoking persons in their immediate environment and therefore these children learn effective adaptive techniques such as a relaxed temperament in response to their early interactions with siblings (Snow, Jacklin, & Maceoby, 1981). However, in contrast, youngest children also face the challenges of being pampered and of developing an abnormally strong feeling of inferiority (Brink & Matlock, 1982).

Family size also alters the family structure in each individual family due to issues of competition and power struggle. For example, large family size may be associated with family competition for personal attention, and children may experience difficulty in meeting psychological need for dependence and privacy, they may also experience low one-to-one affectional interactions with parents. Children that are socialized into small families are associated toward interpersonal and emotional interaction. However children in larger families are associated with authoritarian control (Tashakkori, Thompson, & Yousefi, 1990). Kidwell (1981,1982), concluded that the larger the number of siblings, the greater the increase in perceptions of paternal stringency and the greater the decrease in perceptions of parental reasonableness and supportiveness.

Interaction with others often takes on the basis of one's own assumptions or personal beliefs about the world. These assumptions are often influenced by the birth order of the individual because the family provides the individual with their first assumptions of the world (Croacke & Olson). A better understanding of a client's situation as a child, the issues related to birth order and the relationship between family composition and personality are important to good social work practice. As social workers in direct practice, there is a substantial need to understand as many aspects of their clients' environment and context as possible.

The preamble of the Social Work Code of Ethics states, "the primary mission of the social work profession is to enhance human well-being and help meet the basic human needs of all people, with the particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty." In order to improve and empower a client, social workers must possess a full understanding of the background and context in which a client was brought up. Birth order of a child significantly affects the ideology and personality a client possesses and special attention must be given to how learning their birth order may have affected them.

Personality

The development of a family role can significantly affect how siblings develop the primary ways by which they will be known in the family (Stewart et al, 2001). A child's family role can then reflect on their personality and eventually the way in which they define themselves in society as a whole. Role theory explains that there are three features that characterize perceived family roles. First, an organized and coherent set of behaviors are associated with an identifiable position within the family. When the child is in a family context, a family role is instantiated and the matching role behaviors are triggered as the child interacts with siblings and parents. Second, as time progresses and the child develop, they interact regularly with the thoughts, feelings, and behaviors associated with the role they play in context when portrayed by other family members. Third, the child begins to personalize the role. Both observing and experiencing the self in this process of repeating the portrayed role promotes a sense of role identity internally (Stewart et. al, 2001).

Childhood and the family are central to the story of human behavior because they provide the immediate causal context for developmental scenarios. Childhood is the quest for seeking out a family niche; this eventually becomes the child's personality (Eckstein, 2000). Since each individual is a social, creative, decision-making human being that has a unified purpose, they cannot be fully known outside of their contexts (Blake, 1987). There is a different psychological experience for every individual child based on the child's ordinal position in their family. There is a constant struggle for

power and a sense of competence in the family (Eckstein, 2000). However, it is important not to utilize birth order as a means to stereotype people into rigid categories from which they cannot escape. While considering birth order, there should be concern for other issues such as gender, age differences between siblings, blended families, the death of a sibling, family atmosphere, family values, and early recollections to form a comprehensive picture of the individual (Eckstein, 2000).

First Born Children

Popular culture assumes that first born children are the most likely to become leaders. These children are extremely adult orientated because they interact with adults the most. Children occupying the first child or oldest role are often described as possessing a strong tendency to imitate the parents and take responsibility for younger siblings (Brink & Matlock, 1982). Often the oldest child tends to "parent" their younger siblings as they assume a position of control.

First born children have a unique advantage over their siblings because they have first choice of finding their particular niche in the family. Overwhelmingly, the oldest child defines their role as attempting to please their parents in a traditional way by succeeding in school and responsible behavior. These children are perceived as more conscientious and achieving (Paulhus et al, 1999).

Socially, first born children are also considerably less arguable and open to new experiences than later born children. The resulting adult personality for these children are very conservative and stiff (Paulhus et al, 1999). First born children are also considered to be shyer and more likely to withdraw from peers, perhaps because their

interactions at home have been mainly with adults and peer interaction is less familiar to them. However, this familial position does tend to be more assertive than younger siblings which can be a positive attribute that will help them in many social situations, especially as they grow older (Snow et al., 1981).

Only Children

Only children are associated with being the most academically successful and diligent, spoiled, and least likable among peers (Herrera, 2003). Only children are in a special situation because they often spend most of their time in the presence of adults which is both positive and negative for the child. On the positive side, the only child is rarely ignored and usually provided with adequate time and support compared to other children. However, only children "are generally more autonomous in terms of personal control, have higher levels of initiative or personal aspiration or motivation, are more industrious in terms of educational or occupational achievement, and have stronger identities" (Mellor, 1989, p. 229).

Only children are also predisposed to many negative connotations due to images of over-protective and over-involved parents that seek to live vicariously through their child that may affect their development. Only children often feel their lives are under careful scrutiny and control by their families. They lack the necessary amount of autonomy and independence that children in other positions enjoy (Mellor, 1989).

Middle Children

Lacking the primacy of the first child and the often narcissistic and recent youngest child, children in the middle role often feel there are "squeezed" out of their family. Relative to first and last born children, middle children are thought to experience less interaction and receive significantly less attention. They inevitably suffer consequent negative self-esteem issues in response and almost always experience jealousy because they were at one point the middle child (Tashakkori et al, 1990). Those children that react negatively to this position, often do not feel special in comparison with their siblings and therefore not worthy of their family's attention. These middle children may become discouraged and rejected. However, those middle children that react and assimilate well to their position, often develop excellent interpersonal skills and enjoy spending time with others. These children can be very personable and popular because they learn valuable skills of how to get along with varying groups of people.

Youngest Children

The youngest child in a family is considered to be the most outgoing and secure children, but least academic (Herrera, 2003). The youngest role is perceived as the least capable or least experienced among the siblings, which may result in the youngest child being provided for, indulged, or even spoiled. Sensitive to these possibilities, some youngest children may use this to their advantage and learn skills of manipulating others to do or provide things for them (Herrera, 2003).

Although, some children may become discouraged by the pressure and expectations set by oldest siblings and find they are acknowledged in their families for their failures. However, it is possible for the youngest child to identify themselves as the

"saviors" of the family, that exceed their siblings' accomplishments which places them in a position of esteem and significance (Stewart et al., 2001). Due to the extra attention by parents, in particular by the maternal figure in the child's life, the youngest child tends to lack in overall maturity. The youngest child is provided with an extra dose of motherly participation that feeds the extraverted ego and stimulates the intellect, which is probably the reason that the youngest child is considered most creative (Nakao, et al., 2000).

The youngest child also possesses natural strengths that other siblings do not. These children have personal skills with a personality that is caring, outgoing, thoughtful, and empathizing. The youngest child often has a drive for passion in their lives. They strive for a different type of success than their siblings, by being inclined to new and innovative ideas. Later born children tend to be perceived as acting more sociable in peer situations then first and only born children. These later born children have had invaluable experiences with their siblings and more opportunity to develop social skills from peer interaction inside the home (Snow et al, 1981).

Self-Esteem

Self-esteem is often referred to as the affective or evaluative component of self-concept or self-perception. This aspect of a child's personality is considered relatively crucial for psychological and emotional well-being (Branden, 1987). The parent-child relationship has been proven to be the largest indicator or self-esteem for the child. For example, a study has shown that parental support and acceptance fosters high self-esteem in children Cornell & Grossberg, 1987).

The thoughts and actions of an individual are greatly influenced by a child's self-esteem. The bulk of childhood development of self-esteem is done during childhood and adolescence. During this pinnacle time, the most influential people in a child's life are their parents. A child's self-concept of themselves is learned constellation of perceptions, cognitions, and values. This learning is based on observing the reactions a child receives from others, especially their parents (Wilson, 2002). It is very clear that a child's self-esteem is related to how they individually relate to others. Rosenburg (1979) claims that, "a major determinant of human thought and behavior and a prime motive in human striving…is the drive to protect and enhance one's self-esteem (p.)."

The ordinal position of the child has an effect on the parental attention of the child. First born children and children from small families tend to receive more individual attention from their parents than later-born children and those from larger families which have positive results on self-esteem. "Mothers tend to be more affectionate and interact more with their firstborn children than their laterborns" (Wilson, 2002). It has been speculated that this could be explained either because new parents are overly anxious about their first child, or perhaps because when the second child is born, attention must be split between the two siblings. Later-born children do not receive as extensive attention as firstborns and often feel less appreciated. Therefore, later born children often have lower self-esteem than first and only children (Wilson, 2002).

It is essential that each child feel important and appreciated in the eyes of the parents. However, this is not completely in the parents' control, it is important to note that it is not the amount that the child is actually favored which is important to development, but simply the amount of favoritism or attention that is perceived to be that

way by the child. Mc Hale et al. (1995) found that when there is an unequal treatment amongst siblings, the most commonly form is favoritism toward the younger siblings in the family. Parental favoritism however, has many aspects which affects each child in the family differently. For the favored child, there are positive consequences because the child feels that they are appreciated and valued by the parents. Nevertheless, sibling rivalry caused by parental favoritism may counteract the positive affects by creating a negative situation for the favored child. However, for the unfavored child, there is only a negative affect to this treatment. The child may often feel inferior, angry and incompetent (Wilson, 2002).

The parent-child relationship is of great importance when considering a child's self-esteem. One of the most important aspects of the parent-child relationship is communication. Matteson (1974) performed a study of adolescent self-esteem and family communication. It was proven that parent-child relationships with poor communication lead children to "perceive their parents as being uninterested in them". Indivertibly, children in dysfunctional relationships tend to "learn inadequate communication patterns from their parents" and these are usually the children that avoid interpersonal relationships with peers or adults. The child's perception of their communication with their parents can also be an indicator to them of their parents' ultimate feelings toward them. When a child communicates well with his parents, he is more likely to feel that he is appreciated and will have a higher self-esteem (Wilson, 2002).

Intelligence

Each successive child enters into a different environment that influences the intellectual and scholastic performance of the child. The continuously changing environment of each successive child will affect the intellectual development. The first born child is, until their siblings are born, the object of the family's concern. As the first child, they are intensely surrounded by adults, and are therefore exposed to only adult language. The language includes a diversity of words with sophistication, metaphors and analogies, and the exercise of precision in expression. This is clearly far too advanced for a small child to understand until they reach mental maturity, but the first child will still have an intellectual advantage over their siblings. The second born child is therefore not exposed to only the verbal dialogues among the child's parents, but also of older siblings. Depending on the age gap, a different pool of words will impact the verbal scope the child encounters. This differential exposure will manifest itself later in a younger child's performance on test of verbal fluency, vocabulary, and comprehension (Zajonc, 2001).

Parental involvement and encouragement has a definite impact on a child's intellectual performance. Educated parents tend to encourage higher aspirations and verbal skills in their first born children in comparison with their later born children. This can be attributed to the more intense parental concern about child achievement and conformity for earlier born children. It may also be the case that parents have less time for concentrated attention, when later born children spend more time in the company of other supervision and older siblings. It is also plausible that later born children find they receive more attention for their distinctive actions instead of the repetition of accomplishments by earlier born children (Glass, Neulinger, & Brim, 1974). The earlier

born children have the opportunity for parents to devote more attention to their educational needs (Margoribanks & Walberg, 1975). Earlier born children often take advantage of special reading time with parents, while later born children do not always have this luxury.

Siblings also affect one another's level of success and failure. The further away from the parents the siblings are in birth order, the more strongly they influence each other. Therefore, as the family grows, the influence of siblings on one another grows and the effects of the parents often become diluted (Conley, 2004).

To measure how family involvement effects intellectual performance, there was a study done between siblings in the same family. Mental maturities of children growing up in the same families can be measured by the confluence model by exploring the mental interactions between family members. The confluence model focuses mainly on intellectual influences, reflected in the measurable mental ages of individual family members, although the developmental process within the family is also addressed. According to the general findings on overall intellectual familial environment, as the number of siblings increases, the intellectual environment in the family declines in quality. The teaching function however, referring to older siblings tutoring younger siblings, has a positive effect on an expanding family. Through the teaching function, the older child, the tutor, is in actuality, the only sibling that benefits in this situation, not the younger child being tutored because the tutor's skills and knowledge are both applied and rehearsed. In this role as tutor, the older children gain an intellectual advantage by virtue of rehearsal (Zajonc, 2001). Therefore, the youngest child of a larger is family is significantly disadvantaged in comparison because this child does not have the

opportunity to tutor their siblings. This also places only children at a disadvantage, because just as the youngest child, they do not have the opportunity to act as a tutor for younger siblings (Zajonc, 2001).

Career Choices

A child's ordinal position in the family may play a role in the type of occupations the child, and later as the adult, is predisposed for as a career. In reference to career choices, there is a significant difference in the paths of the first born children and the later-born children. The first born child is overwhelmingly more interested in intellectual and cognitive aspects of society, then the later born child. In contrast, the later-born child is more likely to develop their artistic and creative capabilities in their career. In addition, the only child resembles the first born in this aspect of birth order. Due to the fact that they interact with parents more frequently in comparison with other children, they are more likely to show interest in academic pursuits. First born children and only children often pursue interests in typically prestigious and professional careers such as law or medicine. However, later-born children are more likely to invest themselves in a more creatively-oriented field in which they can utilize their imaginations (USA Today, 2002, p.11).

There is a significant relationship between psychological birth order and career interests. Psychological birth order is described my Alfred Adler (1956) as "the child's number in the order of successive births which influences his character, but the situation into which he is born and way in which he interprets it" (p. 377). Psychological birth

order can vary from a child's actual birth order. The Psychological Birth Order Inventory (PBOI) is an instrument that measures psychological birth order or the degree to which one identifies each birth order position in the family. It measures the four distinct birth order positions of first, middle, only and last born child. The PBOI identifies the first born child as one that strives for perfection and exhibits a strong need to please adults. They stress the importance of following rules to their younger siblings because they feel in a position of authority. The middle child feels "squeezed" between the first born and younger siblings. This child's self-esteem often suffers because they often feel frustrated in not possessing a special place in the family. The middle child often feels slighted and therefore the issue of fairness becomes a reoccurring issue in this child's life. The last born is often viewed as both weak and helpless in the context of the family. Ironically, the youngest child often possesses a powerful position because this child utilizes their abilities to please others through charm and people skills to obtain what they want. The only child is very similar to the first born child, probably because at one point, as first born children were actually only children. They are the centers of their parents' worlds which often produces an abundance of pressure on the child.

The Psychological Birth Order Inventory can be then applied to career interest scales to identify which positions would be best apt for specific careers. The psychologically first born individuals that have achievement, control and perfectionist needs would prefer business operations and business contact areas in which leadership skills are valued. Those individuals that identify with the middle child position often have a well-developed sense of social and interpersonal abilities. Therefore, a career in a social or creative area may be the best fit for this individual. The psychologically

youngest child would prefer a career in areas in which creativity is valued along with spontaneity and imagination. The only child tends to be drawn to careers in high achieving and structured areas that value intellectual, orderly, and practical traits in an employee (White et al., 1997).

Personality

Birth order research is characterized by conflict and ambiguity. When considering how a child's birth order can affect personality, there are several aspects to consider that would also affect the child's personality development including gender, culture, socioeconomic class, and perhaps a self-fulfilling prophecy. Various aspects of family environment have a differential effect on different personality traits. Often the impact of family environment on a child's personality is based on an individual trait to trait basis.

Birth order research findings tend to make large generalizations about the family system, however, no family is the same and each family system copes with adversity and growth in different ways. One child may grow up in the same house, even the same room, as their brother or sister and yet have very different memories of those who raised them and the situations that the family dealt with. Fifty-three percent of sibling pairs that lived in the same room, do not remember their father's education similarly, 46 percent remember their mother differently. Twenty-one percent of siblings differ on whether their mother worked for a year or more during their childhood. While twenty-five percent even disagree about how old their parents are. Clearly, American siblings remember, and thus experience their families differently (Conley, 2004).

When assessing a child's personality, gender must be accounted for because often some of the behaviors associated with various birth order positions have either feminine or masculine connotations. For instance, the youngest children are often associated with feminine gender role characteristics. Some of these characteristics include being charming, initiating, and expressive. Also, these behaviors as the youngest child may be executed differently for men and women. Then socially, according to how gender roles are perceived in our culture, this can impact their behavior as well. For instance, the youngest child behaviors in men may find a level of support from friends and family, while for a woman, these behaviors could be seen as inappropriate (Stewart, et al., 2001). In addition, one family may value traditional gender roles, which would generate male advantages over females. While in other families, girls are expected to achieve as much as boys who would significantly impact the child' s drive to achieve. The role models of the family are also important with how a child perceives gender roles. For instance, the presence of a working mother often impacts a daughter's drive to succeed (Conley, 2004).

Culture is also a determinant that is not often taken into account for a child's personality in regards to birth order. In a study on family structure, there are a number of methodological and conceptual differences between this study and previous studies based on significant cultural differences. First, the U.S. studies generally used families that were smaller then the ones used in this study. Iranian families, on average, tend to be larger than those in the U.S. Families in Iran also have very few one-child families, which in America is not very uncommon. Also, spacing, even in smaller Iranian families,

tends to be very small. In U.S. studies, close spacing has been proven to produce families that can be compared to those with large family sizes.

Another factor that affects personality is the socioeconomic class that the child is born into. High socioeconomic status was directly related to a child's maturity and intellect, however not extraversion. Also, maternal participation influenced extraversion and intellect, whereas paternal participation influenced maturity (Nakao et al., 2000). Generally, each individual differs in their susceptibility to the influences of family environment. However, family environment and structure does have a greater impact on introverts and intellects than it did on extraverts and non-intellects. This may be because introverts and intellects are easily conditioned because they tend to reside more at home and therefore are more exposed and greatly influenced by their family environment (Nakao et al., 2000). "Pure influences of family environment" on personality traits may actually be less than influential than originally thought. There are such a wide variety of factors inside and outside the home that can affect a child's personality, it almost seems impossible to specify one concrete cause. However, these are several factors that play significant roles, but it is important to remember that there is not always a causal relationship for every child.

Traditional explanations of birth order have focused their attention on the differential treatment of children and the effect this family structure has on their personality as substantial. However, there is also evidence that this notion is simply the reverse psychology of a self fulfilling prophecy. It is entirely possible that people's beliefs about birth rank differences may induce differences in parents' expectations for their own children and about other people in general. They may also induce differences

in the attributions about their children's abilities and behaviors as causal evidence. As a result, people may react differently to first born children in comparison to later born children differentially which may reinforce and shape child behavior. As if almost like a cycle, these behaviors will then in turn, only support their beliefs further.

Alfred Adler clarifies that birth order is not a direct determinant of a child's personality, but the child's interpretation of his perceived situation that is the most important factor (Adler, 1932). To operationalize the construct of birth order in a way that is most similar to Adler's conceptualization, researchers have utilized perceived or psychological birth order in their investigations instead of actual order. Psychological birth order is generally defined as the way a person perceives and interprets his position in the family (Ashby, et al., 2003). Although it is plausible for a child's actual birth order to match the child's psychological birth order, this is not always the case. This disagreement may be the cause of the child's familial situation into which the child was socialized into. For example, even though the first child was positioned this way in the structure of the family, this child may have been pampered and spoiled, and then in turn may behave as a youngest child is characterized. Therefore, it is important to keep in mind that actual birth order is not the only determinant of personality traits, this can not always be considered a causal relationship because there are an abundance of extraneous factors to be considered.

Self- Esteem

A child's birth order is not always a significant contributor to a child's self-esteem. For instance, Adler (1932) believed that a favored child may develop

exceptionally well, but he also declared that it is impossible to estimate the harm that parental favoritism can inflict upon the unfavored child. However, it has not been significantly proven that favoritism directly causes self-esteem changes.

There is no significant relationship between parental favoritism and the child's self-esteem. It can be asserted the child that is most favored will interpret the positive interaction with parents as "the affective or valuative component of self-conc ept or self-perception, and a positive self-esteem is considered crucial for psychological and emotional well-being" (Zervas & Sherman, 1993). However, this is no always conclusive because children can interpret this favoritism in various ways. The nonfavored child may often feel inferior, angry, and depressed, as well as unattractive and incompetent. On the other hand, there are not always positive results for the favored child either. There are negative consequences such as sibling jealousy and a greater obligation to parents for achievement which can place an enormous amount of pressure on the child (Zervas & Sherman, 1993).

In fact, there is even scientific evidence to support the notion that parental favoritism does not have any affect on self-esteem or the child's perception of themselves. No significant difference in general between self-esteem between favored and nonfavored children have been found (Zervas & Sherman, 1993). Perhaps, parental favoritism is just one of many aspects that affect a child's self-esteem in comparison to a direct causal relationship.

A child's self-values are also very important in the way a child feels about themselves. If one child tends to value athleticism over attractiveness, then it is more important for this child to excel in sports, rather then feel and look attractive. However,

it is important to note that no one is in complete control of their own personal values. Often these values are ingrained in a child's mind during childhood from their parents. However, throughout one's life there is constant judgment from significant others and loved ones about one's values which can affect self-esteem in that the child's self-perceptions are affected by the way significant others treat them. These evaluations from significant others consistently play a role in a person's perceptions of themselves, however the significance of this effect is based on the significance the child actually places on these familial perceptions. Every child is different; some children may greatly value the opinions of their classmates while others place more importance on their families (Wilson, 2002).

The self-attribution theory identifies the child's self-evaluation as an important factor in determining self-esteem in both children and adults. For children, achievement is defined in received good grades and having respect from peers. The relationship between a child's achievement in terms of school grades and a child's self-concept is consistently a strong relationship (Rosenberg, 1979). Another example in which children create their own self-esteem is based on achievement and respect from peers. A class election is a good example. Rosenburg (1979) believed that being elected an officer of a school group is an indicator of having the respect of one's peers and this significantly increases a child's self-esteem.

Intelligence

The relationship between birth order and intelligence is one of great debate. Some social scientists such as Rodgers, Zajonc, and Blake to name a few have surveyed

the evidence, collected data, and concluded that birth order is extremely important in accounting for intellectual development. Others surveyed the same evidence, collected their own data, and then concluded that birth order has almost nothing to do with intelligence (Rodgers, 2001). Those that have found that there is a strong relationship can point to parental willingness and ability to invest in a child, which tends to decrease as the number of siblings increases (Blake, 1987). While from an opposing point of view, researchers of human genetics would conclude that intelligence is a result of the genes received from one's parents and it has little to do with the order in which one is born. Another major opposing argument is that often when there are findings found amongst a small sample about birth order and intelligence, researches tend to generalize this information too quickly without further research. This trend may be because researchers apply their findings to their own children and see a correlation immediately. They then publish these findings without necessary evidence.

For most people, there is a strong tendency to observe and notice patterns that are an occurrence in one's own family and then simply generalize these observations to other families as well. This often happens with birth order characteristics. Often parents try to find explanations and causal relationships for the behaviors and traits of their children. Although social scientists also began with the same process of familial observation during the beginnings of their research, they do further study their theory to either support of reject their ideas. Evaluating the empirical data from their research, rather then assumptions from one's own personal experience is what develops broadens behavioral and developmental models (Rodgers, 2001). However, many people fall into what is known as the "birth order trap":

Both the public and social scientists have been much too willing in the past to believe that birth order explanations are rather more powerful than they really are…This trap is sprung on social scientists when an interesting and plausible theory is developed, acclaimed, and widely accepted before the appropriate empirical tests are run to evaluate the theory (p.506).

There is a large amount of empirical data which suggests that birth order affects intelligence, however it is only accurate when the evidence is the product of specific research models. The between-family patterns, which are measured in cross-sectional data obtained from many individuals, each from differing families is usually systemic and interpretable. However, the within-family patterns are relatively random and do not have conclusive findings with little relationship between birth order and intelligence (Rodgers, 2001).

The cause of most of the confusion and disagreement regarding intelligence and birth order is the fault of misusing cross-sectional data. Utilizing this model, the researcher can compare the firstborn children with the second born children, who are compared with the third-born and so on. The advantage of the cross-sectional data is it created a "snapshot" of many individuals during only a small time period. Therefore, in theory, the data can be more diverse and accurate. However, there is only a small amount of true within-family variability that is actually contained in these sources. Therefore, when a researcher utilizes cross-sectional data, they are not really observing within-

family processes; they are just inferring them which involve substantial risk (Rodgers, 2001).

In order to correct this fallacy, it is important if cross-sectional data is collected, it must be from outside the family. Otherwise, the systemic patterns observed in many cross-sectional data sources practically will be inconclusive. For example, Retherford and Sewell (1991) analyzed both cross-sectional and within family data from one large data source. They concluded that the source of systematic patterns must come from outside the family. Those researchers that have built their research base on observed cross-sectional data of intelligence have been standing on faulty foundation (Rodgers, 2001). Controlling such variables as family size, sex, and sex and number of siblings is necessary when conducting a research study in regards to birth order (Glass, Neulinger, & Brim, 1974).

The confluence model predicts a negative influence or no influence of birth order for ages less than 11 years of age, and a positive influence of birth order for children over 11 years of age. Both of these findings have been supported on both sides by various studies. Rodgers (2000) claims that "the apparent relation between birth order and intelligence has been a methodological illusion". This illusion is fabricated by incorrectly applying a cross-sectional analysis to data that should have been analyzed by comparing siblings with families. However the actual age of the child significantly affects the results to which intelligence is directly affective of birth order. Often this is the response of a confluence model; it predicts both positive and negative birth order effects. This model interprets from what some authors have regarded as random variation a systematic and theoretically justified explanation (Zajonc, 2001).

A diverse grouping of subjects is also important to produce a more comprehensive look at how birth order affects intelligence. Often subjects are questioned that are at a higher socioeconomic background than most of the country. This significantly skews the findings. For example, one study is forced to account for this skew here, "given the well-documented relationship between socioeconomic status and achievement of eminence, it must be assumed that these populations are disproportionately from a higher socioeconomic background" (Glass, Neulinger, & Brim, 1974). Often studies are forced to account for factors due to the way in which they proceeded with their research. When a study only reports its findings, researchers fail to make this point sufficiently known which can cause for confusion and misinterpretation.

Career Choices

Psychological birth order should be addressed in conjunction with career interests, but cannot be fully affective if it is not studied in conjunction with the other aspects of the child's personality. More efforts should be placed at augmenting psychological birth order with other measures of social interest, goals, and personal lifestyle. This will further assist counselors to place client career interest development into a broader and more holistic social interest perspective.

In fact, significant relationships between lifestyle themes and psychological birth order have been found and published (White, Campbell, and Stewart, 1995). A stronger relationship between psychological birth order and lifestyle appear to be more valid than actual birth order and lifestyle. Often times those children that identify themselves as psychological first-borns tend to be drawn toward business studies majors or work with

mathematics, such as accounting or finance. These children are very driven and can be seen as more tenacious then their siblings. Middle children are predominantly focused on justice and interpersonal connections. They find their passions in service majors and those in which relationships with clients and co-workers are stressed. Middle children have the ability to please and successfully interact with a variety of people because they often assume the role of peace-maker of coordinator in their families. Youngest children are drawn into fields in which imagination and creativity are valued. Youngest children can be seen as teachers, artists, and performers.

Hypothesis

The order in which a child is born has a significant impact on personality, self-esteem, intelligence, and career choices. By obtaining a specific family role based on a child's birth order, a foundation is created for the child to take on similar roles outside the family. However, there is a substantial amount of conflicting evidence based on extraneous factors such as gender, culture, and economic status. There also exists the argument that findings for the connection between birth order and personality, self-esteem, intelligence, and career choices are inconclusive and too inconsistent to conclude that there is any relationship. In particular, a child's gender largely impacts the most on what a child's family role is. To produce more statistically valid data, the variable of gender must be controlled. In the absence of the gender variable, first born children are expected to favor career choices that involve business or mathematics. These first born children are expected to choose majors in college that relate to their field of interest such as management, accounting, and finance. They may also be interested in fields such as chemistry or physics. Only children often behave as first born children and will therefore they choose majors similar to first-borns in college.

In sharp contrast with their older siblings, middle children tend to excel in interpersonal relations and are likely to opt for careers in human relations to seek jobs in which there are a great deal of group collaboration. Middle children choose majors such

as psychology, sociology, and social work. However, the youngest children in a family are thought to be the most creative and innovative thinkers. These children often find careers in which abstract thought and creativity is valued such as teaching, studio art, and the performance arts.

Methodology

Sample

A convenience sample of 100 Providence College students, 38 males and 63 females, were asked to complete a survey regarding their birth order, college major, year of anticipated graduation, career the subject intends to pursue, number of siblings in their families, how they personally perceive their personality traits, and how their family members perceive their personality traits. The mean age of the subjects was 20.13 years. Subjects were 15 freshman, 34 sophomores, 16 juniors, and 35 seniors.

Data Gathering

The survey (see Appendix A) inquires general information questions including the subjects' age, gender, and graduation year. To assess the subjects' personality, the survey is asked subjects to identify as many as applicable of 16 personality traits which were associated with the typical personality traits of the first, only, middle, and last child.

First children are identified in this study with characteristics such as: responsible, cautious, motivated, driven, shy, and intelligent. Since only children tend to behave similarly to first children, their traits are synonymous with the first child traits with one additional trait: easily controlled. Since only children are often the main focus in the

family, parents tends to act controlling and over-involved in their child's life. In some extreme cases, parents of only children attempt to live vicariously through their children. Middle children are often considered the mediator in the household and therefore are identified with characteristics such as: talkative, peace-maker, personable, and jealous. While the youngest children are seen with traits such as: outgoing, sheltered, creative, imaginative, and secure.

Data Analysis

The sample for this study consisted of one hundred students (63 females and 38 males) from a private Liberal Arts New England College. Participants' ages ranged from 18 to 22, with the mean age being 20.13 years. The subjects' graduation year was also noted: 35% were seniors, 16% were juniors, 34% were sophomores, and 15% were freshman. Participants were categorized by birth order as well: 6% were only children, 51% were first children, 12% were middle born children, and 31% were last born children.

Rather than rely on a cluster of traits from past studies, the researcher decided also to subject the 16 scored traits in this study that were derived from past literature, to an exploratory factor analysis which would provide evidence about how these subjects associated the given traits. For analysis utilizing principled competence was employed using the following Rotated Component Matrix. These groupings were then compared to the traits that were designed by the literature as typically characterizing only, first, middle and last born children. First children were described as responsible, cautious, motivated, driven, shy, and intelligent. Only children were grouped together as sharing many of these characteristics with one additional trait, (easily) controlled. Middle children were identified as talkative, peace-makers, personable, and jealous. The youngest or last born

children into the family are described as behaving outgoing, sheltered, creative, imaginative, and secure.

Table 1

Rotated Component Matrix(a)

	Component					
	1	2	3	4	5	6
Outgoing	.777	.082	-.014	-.012	.115	-.155
Shy	-.692	.261	.219	.166	-.090	.093
Talkative	.689	.110	.178	.029	-.186	.209
Creative	.011	.788	-.203	-.078	.020	.056
Imaginative	.029	.787	.031	.277	.022	-.026
Jealous	-.088	.024	.762	.033	-.168	-.032
Controlled	.141	-.166	.685	-.126	.178	-.093
Cautious	-.295	-.209	.408	.332	-.123	.260
Peace-maker	.013	.148	-.117	.749	-.099	-.109
Sheltered	-.100	.013	.073	.733	.134	-.109
Secure	-.095	.287	.004	-.021	.697	-.024
Driven	.163	-.224	-.077	.001	.675	.067
Motivated	.256	-.336	-.290	.275	.387	.363
Personable	.048	-.036	-.051	.262	.176	-.740
Responsible	.020	-.017	-.221	-.083	.274	.607
Intelligent	-.202	.081	.214	.172	.385	.405

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 8 iterations.

Rather then discuss the traits that load highly on each factor at this point, the resulting factors are discussed below when they are involved in significant relationships with other variables. This study can be separated into two separate hypothesizes: 1.) the relationship between birth order and the self-decided traits in the questionnaire. 2.) the relationship between birth order and college majors chosen amongst students.

By analyzing the relationship between birth order and predicted traits of first children, these children, on average, answered most contingent with the predicted traits from the literature. First born children exhibited the highest mean for choosing their predicted traits than any other birth order position with 3.82, which can also be observed on Chart 3. Descriptive analysis yielded similar results for only children as well. Only children tended to choose the traits predicted by the situation with a mean of .1667. Middle born children were also more likely to choose the predicted traits, however there was less of a difference. However, the youngest or last born children do not tend to choose the traits predicted by the literature as this mean is lower than several of the other birth order positions which can be noted on Table 4.

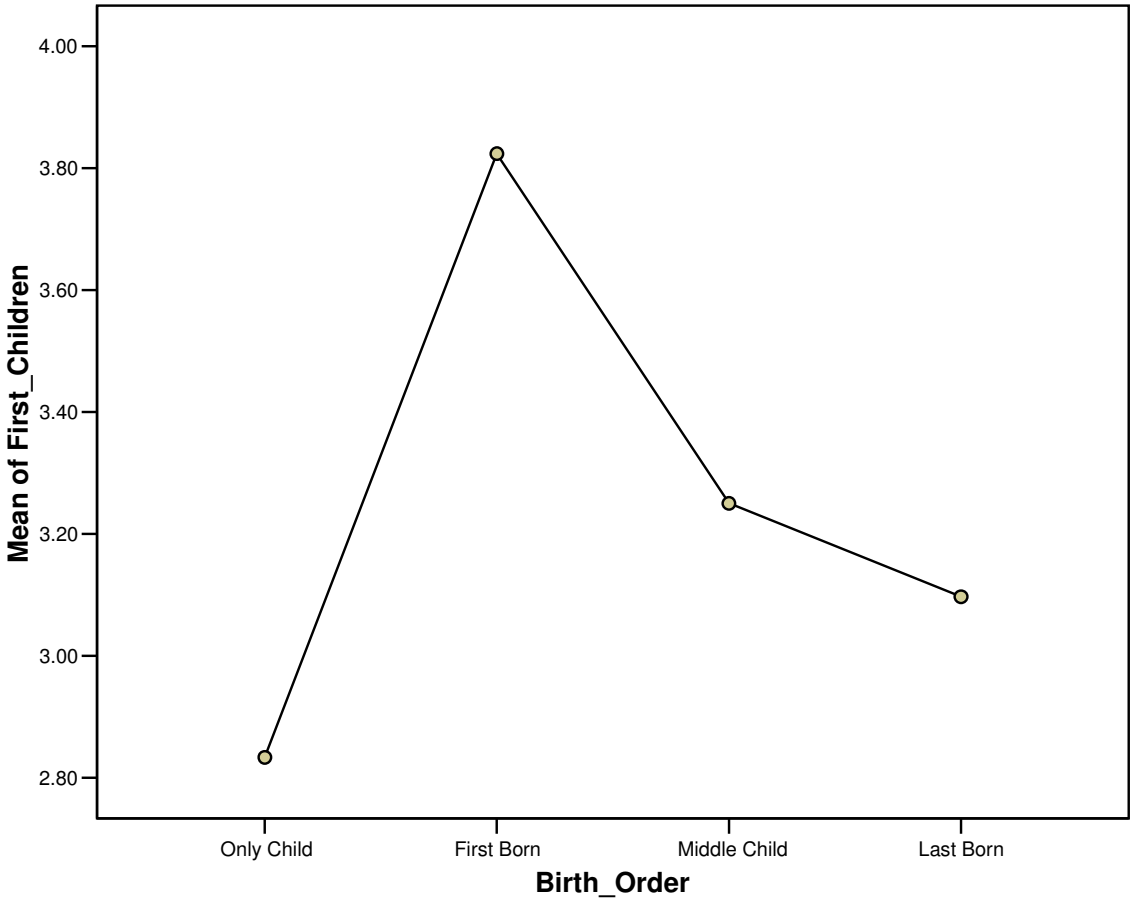
Table 2
Descriptives

		N	Mean
Predicted Traits of First Children	Only Child	6	2.8333
	First Born	51	3.8235
	Middle Child	12	3.2500
	Last Born	31	3.0968
	Total	100	3.4700
Predicted Traits of Only Children	Only Child	6	.1667
	First Born	50	.0800
	Middle Child	12	.0000
	Last Born	31	.0645
	Total	99	.0707
Predicted Traits of Middle Children	Only Child	6	1.3333
	First Born	51	1.4706
	Middle Child	12	1.7500
	Last Born	31	1.7419
	Total	100	1.5800
Predicted Traits of Youngest Children	Only Child	6	2.0000
	First Born	51	1.6275

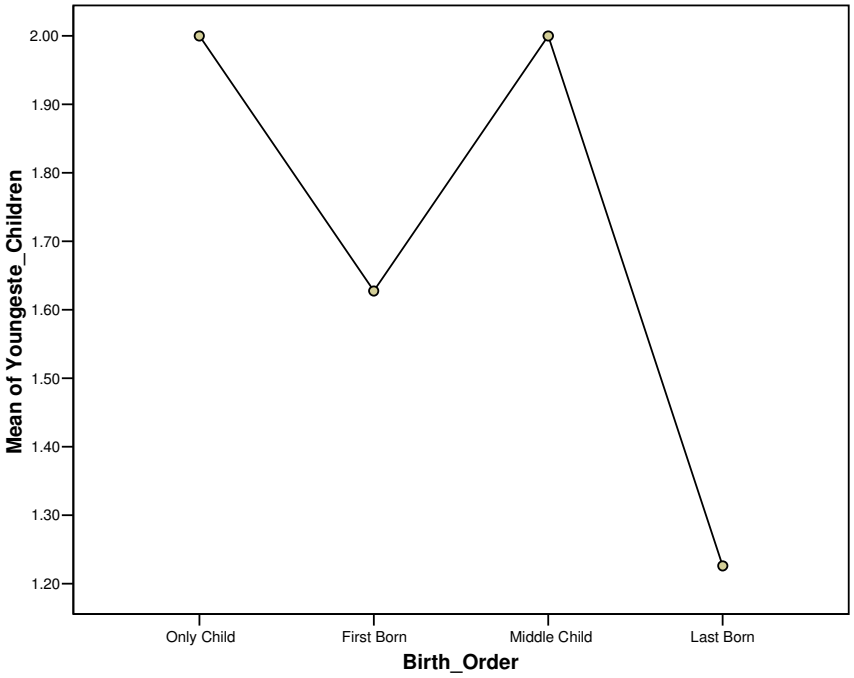
	Middle Child	12	2.0000
	Last Born	31	1.2258
	Total	100	1.5700

		N	Mean
A-R factor score 1 for analysis 1	Only Child	6	.1426359
	First Born	50	-.0778889
	Middle Child	12	.3234538
	Last Born	31	-.0271877
	Total	99	.0000000
A-R factor score 2 for analysis 1	Only Child	6	.2169856
	First Born	50	-.0817003
	Middle Child	12	.2533605
	Last Born	31	-.0082976
	Total	99	.0000000
A-R factor score 3 for analysis 1	Only Child	6	.2321724
	First Born	50	.0205776
	Middle Child	12	-.3705645
	Last Born	31	.0653181
	Total	99	.0000000
A-R factor score 4 for analysis 1	Only Child	6	-.5461418
	First Born	50	.0974383
	Middle Child	12	.1866463
	Last Born	31	-.1237038
	Total	99	.0000000
A-R factor score 5 for analysis 1	Only Child	6	.0902184
	First Born	50	.2460950
	Middle Child	12	.0863912
	Last Born	31	-.4478308
	Total	99	.0000000
A-R factor score 6 for analysis 1	Only Child	6	-.2448275
	First Born	50	.1669335
	Middle Child	12	-.1869316
	Last Born	31	-.1495010
	Total	99	.0000000

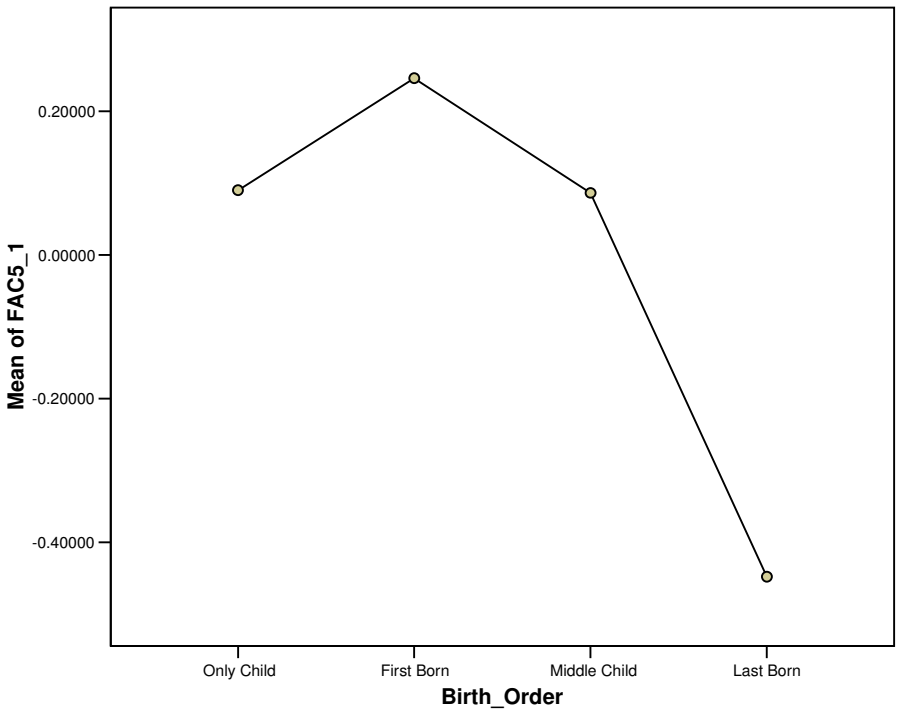
Graph 3


4.00
3.80
3.60
3.40
3.20
3.00
2.80
Mean of First_Children
Only Child
First Born
Middle Child
Last Born
Birth_Order

Graph 4



Graph 5



There proved to be two significant results from the one-way analysis of variance. This analysis was utilized to determine if there are significant differences between a child's birth order and the selection of predicted traits in the questionnaire provided. Respondents were divided into four categories: only children, first children, middle children, and last children. Significant differences were found between the groups ($F(3, 96) = 2.863$, $p = .05$). As one can see, the mean score of first children was 4.568, for the only children it was .040, for middle children it was .712, and for youngest children it was 2.390. There is a statistically significant relationship between birth order and predicted traits of first born children because significance is at .041.

There is another relationship to be noted in this one-way analysis as well. It has been employed to determine that there is a significant difference between Factor 5 and first born children. Factor 5 is identified as the group containing secure, driven,

motivated, and intelligent as predicted traits created from factor analysis. Significant differences were found between the groups ($F(3, 95) = 3.128$, $p = .05$). As one can observe, the mean score or the first child is 3.128. There is a statistically significant relationship between the means of the first children in the group with the predicted traits of the first born children because the significance is at .022. This can be graphically observed on Graph 5.

Table 6
ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Predicted Traits of First Children	Between Groups	13.705	3	4.568	2.863	.041
	Within Groups	153.205	96	1.596		
	Total	166.910	99			
Predicted Traits of Only Children	Between Groups	.121	3	.040	.599	.617
	Within Groups	6.384	95	.067		
	Total	6.505	98			
Predicted Traits of Middle Children	Between Groups	2.135	3	.712	.852	.469
	Within Groups	80.225	96	.836		
	Total	82.360	99			
Predicted Traits of Youngest Children	Between Groups	7.169	3	2.390	1.695	.173
	Within Groups	135.341	96	1.410		
	Total	142.510	99			
A-R factor score 1 for analysis 1	Between Groups	1.704	3	.568	.560	.643
	Within Groups	96.296	95	1.014		
	Total	98.000	98			
A-R factor score 2 for analysis 1	Between Groups	1.389	3	.463	.455	.714
	Within Groups	96.611	95	1.017		
	Total	98.000	98			

A-R factor score 3 for analysis 1	Between Groups	2.125	3	.708	.702	.553
	Within Groups	95.875	95	1.009		
	Total	98.000	98			
A-R factor score 4 for analysis 1	Between Groups	3.157	3	1.052	1.054	.372
	Within Groups	94.843	95	.998		
	Total	98.000	98			
A-R factor score 5 for analysis 1	Between Groups	9.384	3	3.128	3.353	.022
	Within Groups	88.616	95	.933		
	Total	98.000	98			
A-R factor score 6 for analysis 1	Between Groups	2.865	3	.955	.954	.418
	Within Groups	95.135	95	1.001		
	Total	98.000	98			

The second hypothesis deals with the relationship between birth order and chosen college major. The collected data had a wide range of majors that were collapsed into five broader areas to make analysis less cumbersome. The major categories include: Science-related majors, Humanities (which includes English, History, and Philosophy), Social Science (which includes Health Policy, Political Science, Social Work, Sociology, and Psychology), Business-related majors, and Education. This is represented on Table 7. It is important to note that the underclassmen that have no chosen a major yet, or are undeclared, were excluded from these groupings.

Table 7
Collapsed Variables

Category	One	Two	Three	Four	Five
Collapsed Variables	Science	Humanities	Social Science	Business	Education
Included Majors	Chemistry, Physics, Mathematics	Humanities, English, History, Philosophy	Health Policy, Political Science, Social Work, Sociology, Psychology	Marketing, Accounting, Management	Education-Elementary and Secondary

In an effort to assess whether there are differences in the extent that a child's birth order and the major he or she chooses in college based on predicted traits has a significant relationship, a chi-square test of differences was utilized and significant differences were not found (chi-square(12, 98) = 6.032, p = .914).

Table 8
Birth_Order * Major_Fields Crosstabulation

			Major_Fields					Total
			1.00	2.00	3.00	4.00	5.00	
Birth_Order	Only Child	Count	2	1	2	1	0	6
		% within Birth_Order	33.3%	16.7%	33.3%	16.7%	.0%	100.0%
		% within Major_Fields	7.4%	6.3%	7.7%	5.0%	.0%	6.1%
		% of Total	2.0%	1.0%	2.0%	1.0%	.0%	6.1%
	First Born	Count	12	7	15	11	5	50
		% within Birth_Order	24.0%	14.0%	30.0%	22.0%	10.0%	100.0%
		% within Major_Fields	44.4%	43.8%	57.7%	55.0%	55.6%	51.0%
		% of Total	12.2%	7.1%	15.3%	11.2%	5.1%	51.0%
	Middle Child	Count	3	4	1	3	1	12
		% within Birth_Order	25.0%	33.3%	8.3%	25.0%	8.3%	100.0%
		% within Major_Fields	11.1%	25.0%	3.8%	15.0%	11.1%	12.2%
		% of Total	3.1%	4.1%	1.0%	3.1%	1.0%	12.2%
	Last Born	Count	10	4	8	5	3	30
		% within Birth_Order	33.3%	13.3%	26.7%	16.7%	10.0%	100.0%
		% within	37.0%	25.0%	30.8%	25.0%	33.3%	30.6%

	Major_Fields						
	% of Total	10.2%	4.1%	8.2%	5.1%	3.1%	30.6%
Total	Count	27	16	26	20	9	98
	% within Birth_Order	27.6%	16.3%	26.5%	20.4%	9.2%	100.0%
	% within Major_Fields	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	27.6%	16.3%	26.5%	20.4%	9.2%	100.0%

Table 9
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.032(a)	12	.914
Likelihood Ratio	6.630	12	.881
Linear-by-Linear Association	.182	1	.670
N of Valid Cases	98		

However, there was a significant relationship between the factored groupings of traits and a child's choice of major in college. In the test of homogeneity of variances, there yielded one statistically significant relationship which exists through Factor 2 and Group 5, which are personality traits such as creative and imaginative. This creates an association between those children that describe themselves as creative and imaginative tend to choose education as a college major. This finding is also reflected in the literature as valid. There are two relationships that are approaching significance which is Factor 5 being related to Groups 1 and 3 in chosen college majors. These groups are represented as the science-related fields or study and social sciences respectively.

Table 10
Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Predicted Traits of First Children	.261	4	93	.902
Predicted Traits of Only Children	.950	4	92	.439
Predicted Traits of Middle Children	1.537	4	93	.198
Predicted Traits of Youngest Children	3.064	4	93	.020
A-R factor score 1 for analysis 1	.694	4	92	.598
A-R factor score 2 for analysis 1	1.259	4	92	.292
A-R factor score 3 for analysis 1	2.926	4	92	.025
A-R factor score 4 for analysis 1	1.122	4	92	.351
A-R factor score 5 for analysis 1	.969	4	92	.428
A-R factor score 6 for analysis 1	.506	4	92	.731

Conclusion

Birth order is the position in which a child is born into their family. Based on a child's birth order, the manner in which they are treated and socialized by their family can shape the person they grow into as an adult. This is plausible based on the assumption that the family is the child's first social circle. The members of a child's family serve to develop the initial relationships that will impact the child tremendously because these relationships are seen as a model to interact with others outside the family. Based on these initial relationships with in the family system, a child will begin to develop a sense of self. Within a family, there are various niches, or roles that each family member plays. These roles all collaborate together in a functional family. The role or niche they identify with as a child, may lay a precedent for their personality forever.

A child's birth order is the first predictor of how a child will behave, think and feel. The position a child is born into has the potential to shape their personality, self-esteem, intelligence, and eventually their career choices. By examining the birth order of children and how this aspect of their lives has affected them today, this is an opportunity to glimpse into the complex and convoluted human psyche. This information could assist social workers as a frame of reference to understand why a client behaves in a certain way or a clue into a client's thought process. The issue remains that not enough time and energy is dedicated to examining and applying a child's birth order into their overall understanding of the human person. The idea that birth order may be a glimpse into an individual's psyche is not a respect form of support due to some insufficient research findings.

By exploring the validity of a child's birth order and its affect on personality, self-esteem, intelligence, and career choices, social workers would have a more contextual notion of the individual person and their place in the world. Therefore, social workers would gain a new understanding into an individual client's particular situation by examining their developmental experience. In this way, the worker would have an insightful perspective to enlighten them into understanding the core of their client. Until a social worker can fully appreciate and empathize with their clients, then they cannot empower and encourage their clients to change.

In an effort to research and study the relationship between birth order and predicted personality traits, the researcher created a questionnaire which made it possible for subjects to choose the personality traits from a word bank which they feel describe them the best. In order to research and study the relationship between birth order and

career choice, the subjects were questioned on their chosen college major, to signify each individual's career choice which is often reflected in college majors. There was a statistically significant relationship between first children and the predicted personality traits from the literature which include: responsible, cautious, motivated, driven, shy, and intelligent. Therefore, first born children tend to select personality traits that are typically categorized as first born personality traits which would imply that birth order does play a significant role in a child's personality development. There was also an interesting relationship between the personality traits grouping which were created by factor analysis. Factor 5 is a group which included traits such as secure, driven, motivated, and intelligent which are several of the typical first traits. This factor analyzed group also held a statistically significant relationship with a child's birth order. This relationship only supports the findings that birth order does have a noteworthy relationship on a child's personality. However, there is no statistically significant evidence regarding the relationship between only, middle, or last children and the self-decided traits in which they choose.

The second hypothesis was researched and studied by examining the relationship between birth order and chosen college major. This portion of the study was manipulated under the assumption that an individual's college major is a general predictor of one's career path, although this is not always the case. In an effort to present this data as uncomplicated as possible, this researcher collapsed some of the similar majors provided by the subjects into five general categorizes which include: science, humanities, social science, business, and education. Unfortunately there were very few statistically significant findings. There was no relationship between birth order and college major;

however there was a statistically significant relationship between Factor 2, which is a factor analyzed grouping of personality traits and education majors. The Factor 2 group of traits is creative and imaginative. These traits are typically last child personality traits which support the hypothesis that last born children tend to chose education as a college major and career choice.

There are several threats to validity in this study, both internal and external alike. The treats to internal validity include the issue of selection. Due to the nature of this study, especially the subjects and the instrument utilized, the data cannot be considered completely without error. Although the sample size was fairly substantial, this can be considered a convenience sample which is not ideal in comparison with a random sample. Also, the instrumentation used was not perfect. There were several discrepancies throughout the questionnaire including the questions on the number of family members the subject possesses and the self-decided personality traits. Several subjects found the question regarding the number of family members confusing because they were not sure whether they should include themselves in this count, or whether it is implied. The confusion regarding the self-perceived personality traits may be been more accurate if there was a limitation to how many traits should be selected. Often subjects selected more than seven or eight traits, and in one extreme case, the subject selected all the traits. This has the propensity to skew data.

A serious threat to external validity is the population validity of the sample. The population sample is very restricted, 100 students from a private liberal arts New England College, Providence College. This sample consists of only young, prominently Caucasian college students from the Western world. It is not plausible to generalize the

findings of this study to the entire world. It is very limited in its scope and this must be taken into consideration.

Implications

The implications that accompany these finds span social work practice, education, and research. By examining and appreciating a client's birth order as part of their development experience, this could open the doors to new in-depth research about childhood and its affects on adults. There are two separate theories of how a person develops, by nature or nurture. The idea that birth order can have such a significant affect on clients' development and further adult lives supports the latter. This provides a hopeful outlook to the social work as a profession of empowerment and change.

Birth order has an important affect on the education of a child in comparison with a child's siblings. Based on the already established knowledge that birth order can have a major affect on a child's personality because of their initial interactions with family members in which the child begins to develop a sense of self, a child's personality in a classroom setting can either be conducive to learning or not conducive toward learning. Those children that have outgoing personalities and often take leadership roles are traditionally seen as exhibiting characteristics of a first born child. These children are most aggressive in the learning style; however there are drawbacks to this kind of learner as well. First born children are confident and usually strong academically, however they have difficulty thinking "outside the box" in many instances which is seen as a strength in later born children. Later born children are often more passive learners. They tend to participate less in a classroom setting, but excel in other aspects of education such

socializing with others, which middle born children in particular excel in, and artistic and creative thinking which last born children find their strength. A child's birth order not only has an impact on several aspects of their personality such as self-esteem and intelligence, but also on their individual learning style. It is essential for educators to assess their students utilizing birth order as a tool to assist them find what environment is most advantageous to learning for them. Using this knowledge, the educator can begin to reach his or her students on a new level.

Examining more closely this issue of birth order and how it affects the individual person could be a possible gateway issue into examining such issues regarding growing up in various contextual environments. This could be expanded to encompass children of various races, children of different cultures, and children brought up in different countries and how the experience has shaped their lives as adults. By learning more about how various races, cultures, and countries socialize their children and the family systems that matriculate from these settings would provide a great deal of information on development and personality, self-esteem, intelligence, and career choices. Further investigation should also be done into the gender influence of a child's birth order and how this affects development and a child's future. The findings of this work are intended to encourage further investigation into the issues addressed.

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Appendix A

Age _____

Gender _____

Year of Graduation _____

1. How many siblings do you have? _____

2. In what order were you born? (For example: first, second, only, last child, or not sure)
_____

3. What is your major at Providence College? _____

4. What career do you intend to pursue? _____

5. Circle the personality traits that you think best describe you:

Responsible	*talkative*	*secure*	*shy*
Outgoing	*intelligent*	*personable*	*creative*
Cautious	*imaginative*	*motivated*	*driven*
Peace-maker	*sheltered*	*jealous*	*(easily) controlled*

6. How would your siblings and family members describe you? (You may use some of the characteristics above or use adjectives of your own choice)

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